

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-7 are presently pending in this case.

In the outstanding Official Action, Claims 1-7 were rejected under 35 U.S.C. §103(a) as unpatentable over Itoh et al. (U.S. Patent Application Publication No. 20060205358, hereinafter “Itoh”) in view of Alastalo (U.S. Patent No. 6,721,302) and Takano (U.S. Patent Application Publication No. 20030148780).

The outstanding rejection is respectfully traversed.

Claim 1 recites in part:

establishing a list of available modulation schemes,
each modulation scheme having an available transmission
block size;
detecting a channel quality between the base station and
the mobile station;
detecting the amount of data buffered in a transmission
buffer of a sender; and
determining a modulation scheme to be used in the
packet communications based on the channel quality and the
buffered data amount, said determining including determining
the modulation scheme by ***selecting a modulation scheme
from the list using a smallest available transmission block
size that is greater than or equal to the amount of data
buffered.***

The outstanding Office Action cited control unit 22 of Itoh as describing “a modulation scheme determination unit” as recited in Claim 3.¹ However, the outstanding Office Action conceded that Itoh does not disclose determining the modulation scheme by selecting a modulation scheme using a smallest available transmission block size that is greater than or equal to the amount of data buffered, and cited Alastalo as describing this feature.² However, the cited portion of Alastalo, column 3, lines 38-43, only describes that

¹See the outstanding Office Action at page 3, lines 18-21.

²See the outstanding Office Action at page 3, line 19 to page 4, line 13.

the modulation rate can be selected to “help reduce the amount of padding.” There is no teaching or suggestion in Alastalo to select a modulation scheme from the list ***using a smallest available transmission block size that is greater than or equal to the amount of data buffered.***

To the extent that the outstanding Office Action is asserting that Alastalo inherently describes this feature, it is respectfully noted that well settled case law requires that “***the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.***” Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (Emphasis added.).

In this case, it is respectfully submitted that minimizing the amount of padding may be done by choosing a block size less than the amount of and sending multiple small blocks, and in fact would most likely be done in this manner. Accordingly, the statement in Alastalo to reduce the amount of padding does not ***necessarily*** teach or suggest selecting a modulation scheme from the list ***using a smallest available transmission block size that is greater than or equal to the amount of data buffered***, and in fact likely does ***not*** select such a scheme.

Takano was cited by the outstanding Office Action as describing “establishing a list” as defined in Claim 1.³ Takano describes selecting a modulation scheme so as to minimize the transmission power used.⁴ Thus, Takano also does not teach or suggest selecting a modulation scheme from a list ***using a smallest available transmission block size that is greater than or equal to the amount of data buffered.***

³See the outstanding Office Action at page 3, lines 18-21.

⁴See Takano, paragraphs 19 and 20.

Consequently, it is respectfully submitted that none of the cited references teach or suggest “determining a modulation scheme” as defined in Claim 1. Consequently, as the proposed combination does not teach or suggest this feature, Claim 1 (and Claim 2 dependent therefrom) is patentable over Itoh in view of Alastalo and Takano.

Claims 3 and 5 recite in part:

a modulation scheme determination unit configured to determine a modulation scheme for the packet communications based on the channel quality and the buffered data amount in the transmission buffer, said modulation scheme determination unit configured to determine the modulation scheme by ***selecting a modulation scheme from the list using a smallest available transmission block size that is greater than or equal to the amount of data buffered.***

As noted above, none of the cited references teach or suggest any element configured to select a modulation scheme from the list using a smallest available transmission block size that is greater than or equal to the amount of data buffered. Consequently, it is respectfully submitted that the proposed combination does not teach or suggest “a modulation scheme determination unit” as defined in Claims 3 and 5. Consequently, Claims 3 and 5 (and Claim 4 and 6 dependent therefrom) are also patentable over Itoh in view of Alastalo and Takano.

Finally, Claim 7 recites in part:

causing the sender to determine a modulation scheme for the packet communications based on the channel quality and the data amount in the transmission buffer of the sender, said determining including determining the modulation scheme by ***selecting a modulation scheme from the list using a smallest available transmission block size that is greater than or equal to the amount of data buffered.***

As noted above, none of the cited references teach or suggest selecting a modulation scheme from the list using a smallest available transmission block size that is greater than or equal to the amount of data buffered. Consequently, it is respectfully submitted that proposed combination does not teach or suggest “causing the sender to determine a modulation

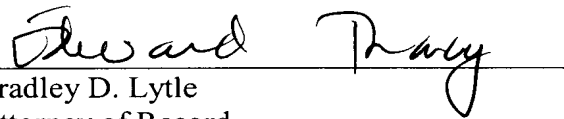
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scheme” as defined in Claim 7. Consequently, Claim 7 is also patentable over Itoh in view of Alastalo and Takano.

Accordingly, the pending claims are believed to be in condition for formal allowance.
An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Bradley D. Lytle", is written over a horizontal line.

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